



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2013-0698; Directorate Identifier 2012-NM-136-AD; Amendment 39-17682; AD 2013-24-08]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are superseding airworthiness directive (AD) 2006-06-14 for certain Airbus Model A318-100 and A319-100 series airplanes, A320-111 airplanes, A320-200 series airplanes, and A321-100 and A321-200 series airplanes. AD 2006-06-14 required operators to review the airplane's maintenance records to determine the part numbers of the magnetic fuel level indicators (MFLIs) of the wing fuel tanks, and perform related investigative and corrective actions if necessary. This new AD also requires an inspection (improved method) to determine the part numbers of the MFLIs, and, if necessary, replacement of the MFLI or repair. This AD was prompted by information that the related investigative actions of AD 2006-06-14 are not fully effective and that an affected MFLI could still be installed on airplanes on which the related investigative actions were accomplished. We are issuing this AD to prevent an ignition source in the wing fuel tank in the event of a lightning strike, which could result in a fire or explosion.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of May 1, 2006 (71 FR 15023, March 27, 2006).

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2013-0698>; or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

**FOR FURTHER INFORMATION CONTACT:** Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1405; fax (425) 227-1149.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to the specified products. The NPRM published in the Federal Register on August 20, 2013 (78 FR 51117), and proposed to supersede AD 2006-06-14, Amendment 39-14523 (71 FR 15023, March 27, 2006). The NPRM proposed to correct an unsafe condition for the specified products.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2012-0119, dated July 4, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

In 2005, several in-service occurrences were reported of finding wear and/or detachment of the top stop of magnetic fuel level indicators (MFLI), either observed during tank maintenance activities, or on MFLI returned to the MFLI manufacturer. The investigation results indicated that the wear of the top stop retaining ‘S’ shaped wire had been caused by repetitive impact with the float, resulting in complete detachment of the top stop.

This condition, if not detected and corrected, could lead an MFLI top stop to come into contact with a probe, which could, in the event of a lightning strike, create an ignition source in the fuel tank vapour space, possibly resulting in a fuel tank explosion and consequent loss of the aeroplane.

DGAC France issued AD F-2005-108 (EASA approval 2005-6026) [<http://ad.easa.europa.eu/ad/F-2005-108>] [corresponding FAA AD 2006-06-14] to require identification (by inspection) and replacement of the affected metallic MFLI (3508802-xx series with the ‘S’ shaped retaining wire) with a metallic MFLI with the top

stop retained by a ‘trapped wire’, or with a composite MFLI.

Since that [French] AD was issued, it has been identified that the inspection procedure (visual check) detailed in Airbus Service Bulletin (SB) A320-28-1138 was not fully effective, and that affected MFLI could still be fitted on aeroplanes which have passed the inspection in accordance with the instructions of this SB.

For the reasons described above, this [EASA] AD, which supersedes DGAC France AD F-2005-108, requires a one-time inspection (improved method) to identify the type of MFLI installed and, depending on findings, replacement or repair, as applicable. This [EASA] AD also prohibits the installation of the affected MFLI on any aeroplane as replacement parts.

The repair may also include locating and removing any missing top stop, and inspecting for any damage caused to the fuel tank by a missing top stop. You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov/#!documentDetail;D=FAA-2013-0698-0002>.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (78 FR 51117, August 20, 2013) or on the determination of the cost to the public.

### **Change to “Applicability,” Paragraph (c) of this Final Rule**

We have removed Airbus Model A320-215 and A320-216 airplanes from paragraph (c) of this final rule. These airplane models are not listed on a U.S. type certificate data sheet (TCDS). If those airplane models are later certificated in the U.S. and listed on a U.S. TCDS, we may consider further action then.

## Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (78 FR 51117, August 20, 2013) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (78 FR 51117, August 20, 2013).

## Costs of Compliance

We estimate that this AD affects 755 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Part numbers review [retained actions from AD 2006-06-14, Amendment 39-14523 (71 FR 15023, March 27, 2006)]	Between 1 and 8 work-hours X \$85 per hour = Between \$85 and \$680	None	Between \$85 and \$680	Between \$64,175 and \$513,400
Inspection for part numbers [new action]	21 work-hours X \$85 per hour = \$1,785	\$0	\$1,785	\$1,347,675

We estimate the following costs to do any necessary replacement or repair that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need the replacement or repair:

**On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Replacement or repair	4 work-hours X \$85 per hour = \$340	\$0	\$340

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

**Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **Examining the AD Docket**

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-0698-0002>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2006-06-14, Amendment 39-14523 (71 FR 15023, March 27, 2006), and adding the following new AD:

**2013-24-08 Airbus:** Amendment 39-17682. Docket No. FAA-2013-0698; Directorate Identifier 2012-NM-136-AD.

#### **(a) Effective Date**

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD supersedes AD 2006-06-14, Amendment 39-14523 (71 FR 15023, March 27, 2006).



**(c) Applicability**

This AD applies to Airbus Model A318-111, A318-112, A318-121, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-111, A320-211, A320-212, A320-214, A320-231, A320-232, A320-233, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, and A321-232 airplanes; certificated in any category; all manufacturer serial numbers.

**(d) Subject**

Air Transport Association (ATA) of America Code 28: Fuel.

**(e) Reason**

This AD was prompted by a report of several in-service incidents of wear and detachment of the top-stops from magnetic fuel level indicators (MFLI) in a wing fuel tank. We are issuing this AD to prevent an ignition source in the wing fuel tank in the event of a lightning strike, which could result in a fire or explosion.

**(f) Compliance**

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

**(g) Retained Review of Airplane Maintenance Records/Investigative and Corrective Actions**

This paragraph restates the requirements of paragraph (f) of AD 2006-06-14, Amendment 39-14523 (71 FR 15023, March 27, 2006). For Model A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; A320-111 airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; Model

A321-111, -112, and -131 airplanes; and Model A321-211, -212, -213, -231, and -232 airplanes; on which Airbus Modification 27496 has not been installed in production: Within 65 months or 6,500 flight hours after May 1, 2006 (the effective date of AD 2006-06-14), whichever is first, review the airplane's maintenance records to determine the part number (P/N) of each MFLI of the wing fuel tanks in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-28-1138, dated March 18, 2005. If the P/N cannot be identified, or the P/N is identified in the "old P/N" column of the table in paragraph 1.L., "Interchangeability/Mixability," of Airbus Service Bulletin A320-28-1138, dated March 18, 2005, before further flight, do the applicable related investigative and corrective actions by accomplishing all of the actions in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-28-1138, dated March 18, 2005.

**(h) Retained Parts Installation Prohibition**

This paragraph restates the requirements paragraph (g) of AD 2006-06-14, Amendment 39-14523 (71 FR 15023, March 27, 2006). For Model A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; A320-111 airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; Model A321-111, -112, and -131 airplanes; and Model A321-211, -212, -213, -231, and -232 airplanes; on which Airbus Modification 27496 has not been installed in production: As of May 1, 2006 (the effective date of AD 2006-06-14), no person may install on any airplane any MFLI of the wing fuel tanks with a P/N identified in the "old P/N" column

of the table in paragraph 1.L., “Interchangeability/Mixability,” of Airbus Service Bulletin A320-28-1138, dated March 18, 2005.

**(i) New Requirement of this AD: Inspection**

For all airplanes, except as provided by paragraph (k) of this AD: At the next scheduled fuel tank entry after the effective date of this AD, or within 49,000 flight hours after May 1, 2006 (the effective date of AD 2006-06-14, Amendment 39-14523 (71 FR 15023, March 27, 2006)), whichever occurs first, perform a special detailed inspection of the wing tank to determine which type of magnetic fuel level indicators (MFLI) are installed, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-28-1209, dated December 12, 2011. A review of airplane maintenance records is acceptable in lieu of this inspection, if the part number and the type of the installed MFLI can be conclusively determined from that review. Paragraphs (i)(1) through (i)(11) of this AD identify the affected MLFI part numbers.

(1) 3508802-24.

(2) 3508802-25.

(3) 3508802-26.

(4) 3508802-27.

(5) 3508802-28.

(6) 3508802-34.

(7) 3508802-39.

(8) 3508802-74.

(9) 3508802-75.

(10) 3508802-76.

(11) 3508802-91.

Note 1 to paragraph (i) of this AD: The affected MFLI have the ‘S’-shaped lock-wire design.

**(j) New Requirement of this AD: Replacement or Repair**

If, during the inspection required by paragraph (i) of this AD, a MFLI with the ‘S’ shaped lock-wire design (Part Number (P/N) listed in paragraphs (i)(1) through (i)(11) of this AD) is found, then at the next scheduled fuel tank entry after the effective date of this AD, or within 49,000 flight hours after May 1, 2006 (the effective date of AD 2006-06-14, Amendment 39-14523 (71 FR 15023, March 27, 2006)), whichever occurs first, replace the affected MFLI with a serviceable part and accomplish the corrective actions (repair), as applicable, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-28-1209, dated December 12, 2011. For the purpose of this AD, a serviceable part is a composite MFLI, or a metallic MFLI with the top stop retained by a ‘trapped wire,’ as applicable to the location identified in Table 1 of paragraph (j) of this AD.

**Table 1 of Paragraph (j) of this AD - *Metallic MFLI with the top stop retained by a ‘trapped wire,’ including applicable location (FIN)***

<b>MFLI P/N</b>	<b>Applicable Location (FIN)</b>
3508802□35	56/57QM
3508802□36	58/59QM
3508802□37	60/61QM
3508802□38	62/63QM

**(k) New Requirement of this AD: Exception for Paragraph (i) of this AD**

Airplanes on which Airbus Modification (mod) 27496 has been embodied in production, and on which no wing tank MFLI replacement with a part number listed in paragraphs (i)(1) through (i)(11) of this AD has been made since first flight, are not affected by the requirement of paragraph (i) of this AD.

**(l) New Requirement of this AD: Parts Installation Prohibition**

As of the effective date of this AD, do not install on any airplane a MFLI with a part number listed in paragraphs (i)(1) through (i)(11) of this AD.

**(m) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1405; fax (425) 227-1149. Information may be emailed to: [9-ANM-116-AMOC-REQUESTS@faa.gov](mailto:9-ANM-116-AMOC-REQUESTS@faa.gov). Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or its delegated agent, or by the Design Approval Holder with a State of Design Authority's design organization approval). For a repair method to be approved, the repair approval must specifically refer to this AD. You are required to assure the product is airworthy before it is returned to service.

**(n) Special Flight Permits**

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

**(o) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency (EASA) Airworthiness Directive 2012-0119, dated July 4, 2012, for related information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-0698-0002>.

**(p) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Airbus Service Bulletin A320-28-1209, dated December 12, 2011.

(ii) Reserved.

(4) The following service information was approved for IBR on May 1, 2006 (71 FR 15023, March 27, 2006).

(i) Airbus Service Bulletin A320-28-1138, dated March 18, 2005.

(ii) Reserved.

(5) For service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>.

(6) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on November 15, 2013.

John Piccola,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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